

Listing of Claims:

Claims 1- 82 (**canceled**).

Claim 83 (**currently amended**): A humanized antibody, or fragment thereof, which binds to an ACT-4-h-1 receptor ~~polypeptide comprising~~ wherein said humanized antibody or antibody fragment comprises a humanized heavy chain, wherein the humanized heavy chain comprises at least one of the three complementarity determining regions corresponding to the complementarity determining regions of the heavy chain of a monoclonal antibody that specifically binds to an ACT-4-h-1 receptor ~~polypeptide~~.

Claim 84 (**currently amended**): The humanized antibody or antibody fragment of claim 83, wherein said humanized antibody or antibody fragment specifically binds to an ACT-4-h-1 receptor ~~polypeptide~~ with a binding affinity that is within three-fold of the binding affinity of ~~an L106 antibody, produced by the~~ monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483.

Claim 85 (**canceled**).

Claim 86 (**currently amended**): A humanized antibody, or fragment thereof, which binds to an ACT-4-h-1 receptor ~~polypeptide comprising, wherein said humanized antibody or antibody fragment comprises~~ a humanized light chain, wherein the humanized light chain comprises at least one of the three complementarity determining regions corresponding to the complementarity determining regions of a light chain of an antibody that specifically binds to an ACT-4-h-1 receptor ~~polypeptide~~.

Claim 87 (**canceled**).

Claim 88 (**currently amended**): The humanized antibody or antibody fragment of claim 86, wherein said humanized antibody or antibody fragment specifically binds to an ACT-4-h-1 receptor ~~polypeptide~~ with a binding affinity that is within three-fold of the binding affinity of ~~an L106 antibody, produced by the~~ monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483.

Claim 89 (**currently amended**): A humanized antibody, or fragment thereof, which binds to an ACT-4-h-1 receptor polypeptide comprising, wherein said humanized antibody or antibody fragment comprises: (a) a humanized light chain, wherein the humanized light chain at least one of the three complementarity determining regions corresponding to the complementarity determining regions of a light chain of an antibody that specifically binds to an ACT-4-h-1 receptor polypeptide, and (b) a humanized heavy chain, wherein the humanized heavy chain at least one of the three complementarity determining regions corresponding to the complementarity determining regions of a heavy chain of an antibody that specifically binds to an ACT-4-h-1 receptor polypeptide.

Claim 90 (**currently amended**): The humanized antibody or antibody fragment of claim 89, wherein said humanized antibody or antibody fragment specifically binds to an ACT-4-h-1 receptor ~~polypeptide~~ with a binding affinity that is within three-fold of the binding affinity of an L106 antibody produced by the monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483.

Claim 91 (**canceled**).

D
Claim 92 (**new**): An antibody, or fragment thereof, that specifically binds an ACT-4-h-1 receptor, wherein said antibody or antibody fragment has a different binding specificity than that of the monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483.

Claim 93 (**new**): The antibody or antibody fragment of claim 92, wherein said antibody is a monoclonal antibody.

Claim 94 (**new**): The antibody or antibody fragment of claim 92, wherein said fragment is selected from the group consisting of a heavy chain, a light chain, a Fab fragment, a Fab' fragment, a F(ab')₂ fragment, a Fabc fragment, and a Fv fragment.

Claim 95 (**new**): The antibody or antibody fragment of claim 92, wherein said antibody or antibody fragment stimulates activation of CD4⁺ T-cells.

Claim 96 (**new**): The antibody or antibody fragment of claim 92, wherein said antibody or antibody fragment inhibits activation of CD4+ T-cells.

Claim 97 (**new**): The antibody or antibody fragment of claim 92, wherein said antibody or antibody fragment inhibits ACT-4-induced DNA synthesis.

Claim 98 (**new**): The antibody or antibody fragment of claim 92, wherein said antibody or antibody fragment inhibits ACT-4-induced protein phosphorylation.

Claim 99 (**new**): The antibody or antibody fragment of claim 92, wherein said antibody or antibody fragment is fused to a toxin polypeptide.

101 Claim 100 (**new**): An antibody, or fragment thereof, wherein said antibody or antibody fragment (a) specifically binds an ACT-4-h-1 receptor and (b) does not compete with the monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483, for specific binding to said ACT-4-h-1 receptor.

Claim 101 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody is a monoclonal antibody.

Claim 102 (**new**): The antibody or antibody fragment of claim 100, wherein said fragment is selected from the group consisting of a heavy chain, a light chain, a Fab fragment, a Fab' fragment, a F(ab')₂ fragment, a Fabc fragment, and a Fv fragment.

Claim 103 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody or antibody fragment stimulates activation of CD4+ T-cells.

Claim 104 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody or antibody fragment inhibits activation of CD4+ T-cells.

Claim 105 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody or antibody fragment inhibits ACT-4-induced DNA synthesis.

Claim 106 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody or antibody fragment inhibits ACT-4-induced protein phosphorylation.

Claim 107 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody or antibody fragment is fused to a coat protein of a filamentous phage.

Claim 108 (**new**): The antibody or antibody fragment of claim 100, wherein said antibody or antibody fragment is fused to a toxin polypeptide.

Claim 109 (**new**): An anti-idiotypic antibody, or fragment thereof, wherein said antibody or antibody fragment (a) specifically binds an ACT-4-h-1 receptor and (b) results in an effect as produced in CD4+ T-cells by binding of an ACT-4 ligand polypeptide.

Claim 110 (**new**): The antibody or antibody fragment of claim 109, wherein said antibody is a monoclonal antibody.

① Claim 111 (**new**): The antibody or antibody fragment of claim 109, wherein said fragment is selected from the group consisting of a heavy chain, a light chain, a Fab fragment, a Fab' fragment, a F(ab')₂ fragment, a Fabc fragment, and a Fv fragment.

Claim 112 (**new**): The antibody or antibody fragment of claim 109, wherein said antibody or antibody fragment stimulates activation of CD4+ T-cells.

Claim 113 (**new**): The antibody or antibody fragment of claim 109, wherein said antibody or antibody fragment inhibits activation of CD4+ T-cells.

Claim 114 (**new**): The antibody or antibody fragment of claim 109, wherein said antibody or antibody fragment inhibits ACT-4-induced protein phosphorylation.

Claim 115 (**new**): An antibody or antibody fragment of claim 109, wherein said antibody or antibody fragment is fused to a toxin polypeptide.

Claim ~~116~~ (new): An antibody, or fragment thereof, wherein said antibody or antibody fragment (a) specifically binds an ACT-4-h-1 receptor and (b) may be produced by immunizing an animal with purified ACT-4 receptor polypeptide.

Claim 117 (new): An antibody or antibody fragment of claim 116, wherein said antibody or antibody fragment may be produced by immunizing an animal with an ACT-4-h-1 receptor polypeptide.

Claim ~~118~~ (new): An antibody, or fragment thereof, wherein said antibody or antibody fragment specifically binds an ACT-4-h-1 receptor with an affinity that is within three-fold of the binding affinity of the monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483.

*D1
cancel*
Claim 119 (new): A monoclonal antibody, or fragment thereof, wherein said monoclonal antibody or antibody fragment (a) specifically binds to an ACT-4-h-1 receptor; (b) competes with a monoclonal antibody generated by hybridoma HBL106, deposited under ATCC Accession No. HB11483; and (c) is fused to a coat protein of a filamentous phage.
